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A new genus of Anomalini from Vietnam (Coleoptera: Scarabaeidae: Rutelinae)

Новый род Anomalini из Вьетнама (Coleoptera: Scarabaeidae: Rutelinae)

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КЛЮЧЕВЫЕ СЛОВА: Rutelinae, Anomalini, новый род и вид, Вьетнам.

ABSTRACT. *Dalatamala araneipes* **gen.** et **sp.n.** is described from montane cloud forests of Dalat Highlands in Central Vietnam. The protruding, dorsally exposed labrum distinguishes it from the rest of Oriental Rutelinae.

РЕЗЮМЕ. Описан новый род и вид, *Dalatamala araneipes* **gen.** et **sp.n.**, из горных облачных лесов Далатского нагорья в центральном Вьетнаме, который отличается от всех прочих ориентальных рутелин формой верхней губу, выступающей перед наличником и видимой сверху.

Among the anomalines collected in the Dalat Plateau during 2005–2012, there is a number of unnamed taxa, including a small series of what looks superficially like an *Anomala* but differs dramatically in a number of features. This beetle is described below as a new genus and species.

The type series, currently in the Author's collection, will be deposited in the Moscow University Zoological Museum.

Dalatamala Prokofiev **gen.n.**

TYPE SPECIES: *Dalatamala araneipes* **sp. n.**, by monotypy.

DIAGNOSIS. Labrum horizontal, visible from above; clypeus as long as wide, its anterior margin rounded, sides converging toward apex; male antennal club enlarged; apical maxillary palpomere in males with oval impression on lateral surface; base of pronotum not emarginate in middle; mesepimera not visible from above; elytral epipleura short, apical membrane narrow but long, elytral sides setose in apical two thirds; no prosternal and mesometasternal processes; ventrites sharply carinate laterally; legs long and slender; protarsomere 1 elongate in females; all tibiae with terminal spurs; meso- and metatarsal claws independently movable; metatarsomeres apically produced at interior angles.

DISCUSSION. The above combination of characters distinguishes this genus among the subfamily. The most distinctive is the exposed labrum, unique among Oriental Rutelinae, assuming *Peltonotus* Burmeister, 1847 is not a ruteline (the typical anomaline tarsi and mandibles of the new taxon rule out the *Peltonotus* affinities anyway). The new genus is in many ways similar to *Anomala* Samouelle, 1819, whose members may occasionally show such shape of the clypeus, the enlarged male antennal club, the lateral elytral callosities in females, or the strongly carinate sides of the abdomen. However, the setose lateral elytral margin and the shape of the apical maxillary palpomere in males, the unusual elongation of the protarsomere 1 in femalçes are the new taxon's autapomorphies.

Anomala still awaits phylogenetic analysis, and is still treated as an entity [e.g., Zorn, 2006] despite being highly heterogeneous. The status of related minor genera, such as *Adoretosoma* Blanchard, 1850, *Anoplanomala* Arrow, 1917, *Choumala* Kobayashi, 2008, *Micranomala* Arrow, 1911, etc., remains therefore uncertain, as they may have originated outside or within *Anomala* s.l. This applies to the genus described below as well; however, because of its exposed, protruding labrum (unique among Anomalini and, as a feature, highly relevant in scarab taxonomy in general), I choose to add another taxon rather than redefine *Anomala* s.l.

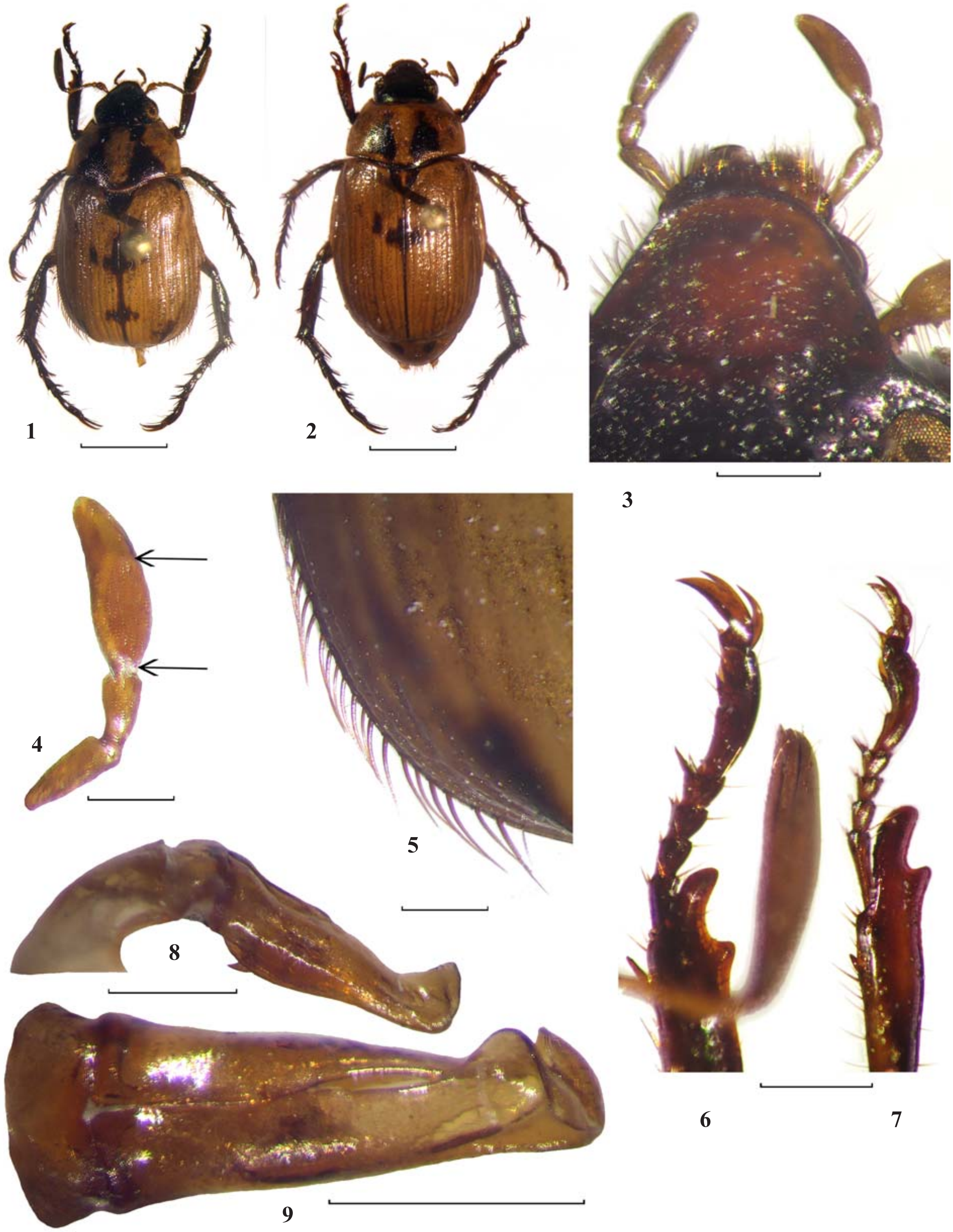
ETYMOLOGY. Name refers to Dalat Highlands and the genus *Anomala*; gender, feminine.

Dalatamala araneipes Prokofiev **sp.n.**
Figs 1–9

HOLOTYPE: ♂, Vietnam, Lam Dong province, Dalat Plateau, Bi Doup – Nui Ba National Park, Hon Giao Pass, 12°10´58´´N, 106°42´50´´E, alt. 1625 m, 18–19.iv.2010, A.M. Prokofiev leg.

PARATYPES, all same location: ♂ ♀, 18–19.iv.2010; 2♂♂, 13.v.2009; ♂, 15–16.iv.2010; ♂, 22–24.iv.2012; 1♀ 26.v.2012.

DESCRIPTION. **Male**, holotype (Fig. 1). Length 10 mm, width 5.5 mm. Elongate ovoid, moderately convex. Testaceous; clypeus cherry-brown, front and vertex black; pronotum with a pair of paramedial vittae reaching both base and apex, abruptly broadened posterad in a triangle at about two-thirds of their length, and narrowly connected at base; scutellum black, narrowly pale at apex; elytra with dark (black to piceous) markings as follows: (i) humeri anterolaterad of umbones and humeral parts of epipleura, (ii) a group of more or less coalescent spots forming an arrowhead shape on elytral suture just before middle, (iii) similar but smaller transverse sutural macula in apical third, (iv) calli, (v) suture



Figs 1–9. *Dalatamala araneipes* **gen.** et **sp.n.**: 1–2 — habitus; 3 — clypeus and labrum; 4 — maxillary palpus (impressed area indicated by arrows); 5 — lateroapical margin of elytron with setae; 6–7 — protarsus; 8 — aedeagus; 9 — parameres; 1, 3–6, 8–9 — holotype, male; 2, 7 — paratype, female; 1–7, 9 — dorsally; 8 — laterally. Scale bars: 1–2 — 3 mm; 3 — 0.5 mm; 4–5 — 0.25 mm; 6–9 — 1 mm.

Рис. 1–9. *Dalatamala araneipes* **gen.** et **sp.n.**: 1–2 — внешний вид; 3 — наличник и верхняя губа; 4 — челюстной щупик (вдавление обозначено стрелками); 5 — предвершинный край надкрылий с хетами; 6–7 — передняя лапка; 8 — эдеагус; 9 — парамеры; 1, 3–6, 8–9 — голотип, самец; 2, 7 — паратип, самка; 1–7, 9 — сверху; 8 — сбоку. Масштаб: 1–2 — 3 мм; 3 — 0,5 мм; 4–5 — 0.25 мм; 6–9 — 1 мм.

narrowly darkened at posterior two thirds; and (vi) scattered smudges on elytra. Pygidium with lateral thirds blackish, each with a large pale spot; a dark streak on apical ventrite from spiracle to anterior margin; apical margin of preapical ventrite infuscate at the middle. Metasternum medially infuscate; tarsi, outer surface of pro- and mesotibiae, entire metatibiae, apices of meso- and metafemora, trochanters, and apical ventrite dark reddish-brown to black, with faint metallic green luster on meso- and especially metatibiae.

Clypeus (Fig. 3) as long as wide, strongly tapered anterad, broadly rounded anteriorly, with outer margin moderately raised and no anterior angles. Clypeus and an adjacent impressed triangular area on frons coarsely transversely rugoso-punctate (clypeus somewhat more rugose); frons elsewhere, and vertex anteriorly, coarsely densely punctate, punctures on vertex getting markedly reduced posterad in size and density. A row of long bristles along inner margin of eye; the rest of head glabrous dorsally. Labrum exposed dorsally (Fig. 3), with apical margin convex and long bristles. Maxillary palpomere 2 about $^2/_3$ as long as palpomere 1; palpomere 3 as long as palpomeres 1 and 2 combined, elongate fusiform, with large, densely microsculptured opaque oval impression on basal two-thirds of lateral surface (Figs 3–4). Mentum emarginate apically. Antennae 9-segmented, with 3-segmented club; antennomere 6 disc-shaped, with pronounced anterodistal angle; club somewhat longer than funicle.

Pronotum 1.6 times as wide as long, widest at middle; sides markedly convergent anterad and slightly convergent posterad; anterior angles acute, basal angles rectangular; base convex at middle third, very slightly concave laterad; basal bead widely obliterated in middle. Pronotum coarsely and densely punctate, with a few widely spaced long setae along sides, bare elsewhere. Scutellum densely punctate. Elytra 1.2 times as long as combined width, slightly widen posteriorly. Punctures arranged into distinct, slightly impressed rows; intervals flat; interval 2 irregularly punctate; intervals 4 and 6 each with an additional series of punctures; other intervals finely punctate and transversely rugose. Epipleura not reaching past mid-length of metacoxae, with subhumeral setae; apical membrane narrow but reaches the level of mid-length of metacoxae; elytra with a lateral series of dense curved setae from base of abdomen almost to callus (Fig. 5). Propygidium entirely covered; pygidium rather flat, finely rugose, with a few long, scattered erect hairs apically. Sterna densely punctate, with long, moderately dense pale pubescence. Ventrites with microreticulation (somewhat coarser posterad) but no punctures or rugae, and with transverse series of sparse setae just behind middle, except on the last ventrite where a fringe of dense long hairs runs along apical margin. Ventrites 1–4 with very strong carinae dorsally.

Protibiae with two closely spaced teeth; inner spur positioned at level of basal tooth. Protarsomere 5 elongate, moderately dilated apically, somewhat longer than three preceding tarsomeres combined, with small tooth on ventral rim just behind mid-length. All claws disparate in length. Inner protarsal claw deeply cleft, with ventral lobe longer and twice broader than dorsal lobe and ventral rim deeply emarginate at base (Fig. 6). Outer mesotarsal claw deeply cleft, lobes of equal length but lower one somewhat broader; metatarsal claws entire. Meso- and especially metatibiae fusiform, slightly dilated in middle; meso- and metatarsi markedly longer than tibiae.

Parameres (Figs 8–9) long, with apices asymmetrical, reflexed and somewhat expanded.

Female (Fig. 2). Length 11 mm, width 4.8 mm. Slightly more elongated and parallel-sided than male. Body testaceous; front and clypeus dark red, vertex black; pronotum with a pair of large subtriangular dark maculae on disc and a small fuzzy lateral mark just before middle; scutellum dark, with pale cross-shaped mark; elytral suture narrowly dark, with an arrowhead-shaped marking made of dark spots just before mid-length; pygidium testaceous, with a pair of rather small black spots at base; venter testaceous. Pro- and mesotarsi and protibiae reddish-brown, infuscate at tips and margins; mesotibiae pale, with basal point dark with metallic green luster; metatibiae and metatarsi dark reddish-brown with strong metallic green luster.

Antennal club but slightly longer than antennomeres 2–6 combined; antennomere 6 not projected anterodistally. Apical maxillary palpomere elongate cylindrical, not impressed. Pronotum 1.8 times as wide as long. Elytra 1.5 times as long as combined width, outer margin bare, strongly callose at middle. Sternal pubescence shorter and more adpressed than in male. Apical tooth of protibiae tongue-shaped, longer and broader than in male; inner spur attached well behind the level of basal tooth. Protarsomere 1 rod-like, as long as tarsomeres 2–4 combined; protarsomere 5 much less dilated apically than in male, with a hint of ventral denticle just behind middle. Inner protarsal claw deeply cleft, lobes of the same length though the lower one ca. 1.5 times broader; inner claw rather regularly curved ventrally (Fig. 7).

Vaginal palpi symmetrical, flat, finger-like, and setose.

VARIATION. Males: length 9–10 mm, width 4–5 mm. Elytra 1.2–1.4 times as long as wide. Dorsal pattern slightly variable, but generally same as in holotype; dark pygidial pattern on each side usually reduced to a pair of spots or longitudinal streaks. Paramere shape consistent.

Females: length 10.5 mm, width 4.5 mm. Color pattern similar to that of allotype, but head entirely black dorsally, pronotal markings much smaller, and mesotibiae more infuscate.

BIONOMICS. This species appears to be local and uncommon; all the specimens were collected at lights in montane cloud forest.

ETYMOLOGY. Named with reference to long, slender “spider-like” legs.

References

Zorn C. 2006. Anomalini. // I. Löbl & A. Smetana (Eds). Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Stenstrup: Apollo Books. P. 251–276.